

# Chip Beads(SMD) For Power Line

Conformity to RoHS Directive

## MPZ Series MPZ2012 Type

### FEATURES

- The MPZ series are multilayer chip impeders for power supply line applications.
- High miniaturized, these parts nonetheless exhibit low DC resistance and high current handling capability.
- The products contain no lead and also support lead-free soldering.
- It is a product conforming to RoHS directive.

### APPLICATIONS

Noise elimination of DC power supply lines for USB interface circuitry, personal computers, electronic games, hard disk drives, and other general electronic equipment.

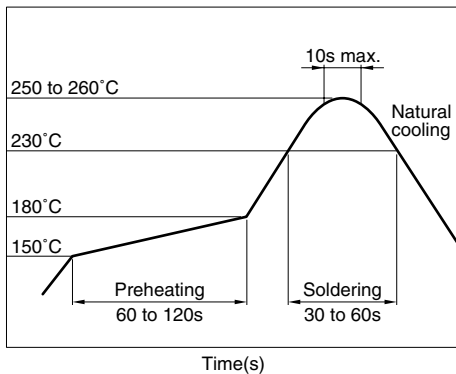
Also effective as a noise countermeasure in signal lines.

### PRODUCT IDENTIFICATION

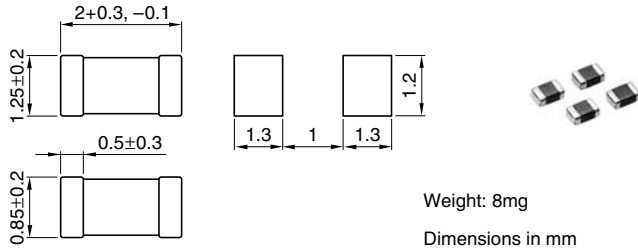
MPZ	2012	S	331	A	T
(1)	(2)	(3)	(4)	(5)	(6)

- (1)Series name  
 (2)Dimensions L×W  
 (3)Material code  
 (4)Nominal impedance  
     331: 330Ω at 100MHz  
 (5)Characteristic type  
 (6)Packaging style  
     T: Taping

### RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



### TEMPERATURE RANGES

Operating/storage	-55 to +125°C
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### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	4000 pieces/reel

### HANDLING AND PRECAUTIONS

- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and product temperature does not exceed 150°C.
- After mounting components onto the printed circuit board, do not apply stress through board bending or mishandling.
- The inductance value may change due to magnetic saturation if the current exceeds the rated maximum.
- Do not expose the inductors to stray magnetic fields.
- Avoid static electricity discharge during handling.
- When hand soldering, apply the soldering iron to the printed circuit board only. Temperature of the iron tip should not exceed 350°C. Soldering time should not exceed 3 seconds.

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• Please contact our Sales office when your application are considered the following:  
 The device's failure or malfunction may directly endanger human life (e.g. application for automobile/aircraft/medical/nuclear power devices, etc.)

• All specifications are subject to change without notice.

## ELECTRICAL CHARACTERISTICS

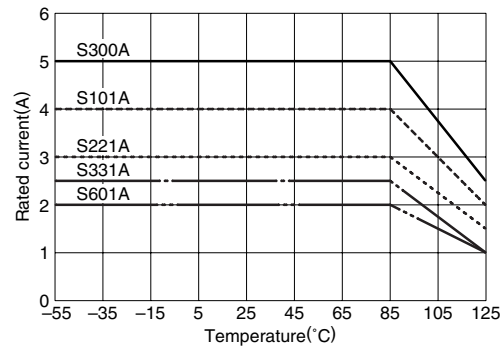
Part No.	Impedance ( $\Omega$ )[100MHz]*1	DC resistance ( $\Omega$ )max.	Rated current*2 (A)max.
MPZ2012S300A	30 $\pm$ 10 $\Omega$	0.01	5
MPZ2012S101A	100 $\pm$ 25%	0.02	4
MPZ2012S221A	220 $\pm$ 25%	0.04	3
MPZ2012S331A	330 $\pm$ 25%	0.05	2.5
MPZ2012S601A	600 $\pm$ 25%	0.1	2

\*1 Test equipment: E4991A or equivalent

Test tool: 16192A or equivalent

\*2 Please refer to the graph of RATED CURRENT vs. TEMPERATURE CHARACTERISTICS(DERATING) about the rating current at 85°C or more in temperature of the product.

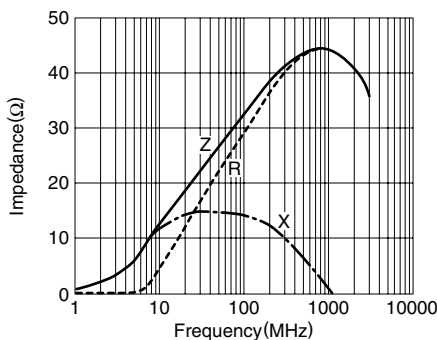
## RATED CURRENT vs. TEMPERATURE CHARACTERISTICS (DERATING)



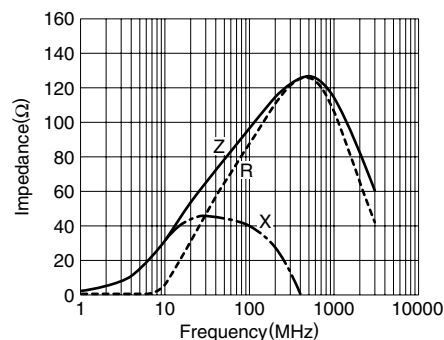
## TYPICAL ELECTRICAL CHARACTERISTICS

### Z, X, R vs. FREQUENCY CHARACTERISTICS

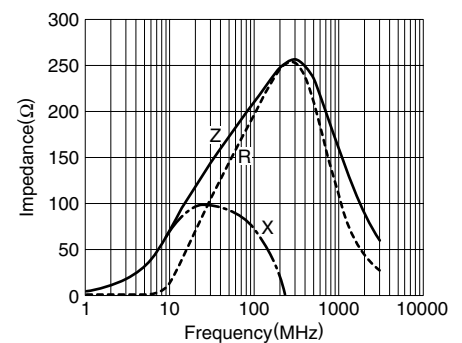
#### MPZ2012S300A



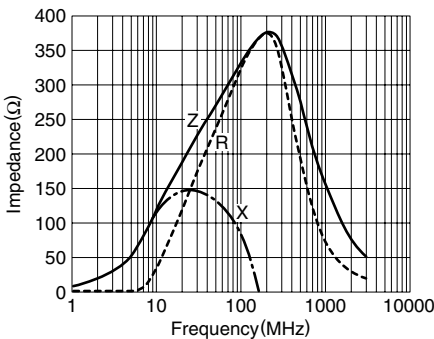
#### MPZ2012S101A



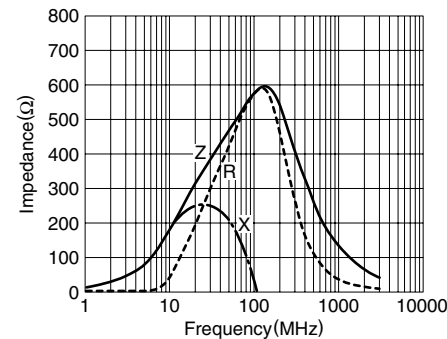
#### MPZ2012S221A



#### MPZ2012S331A

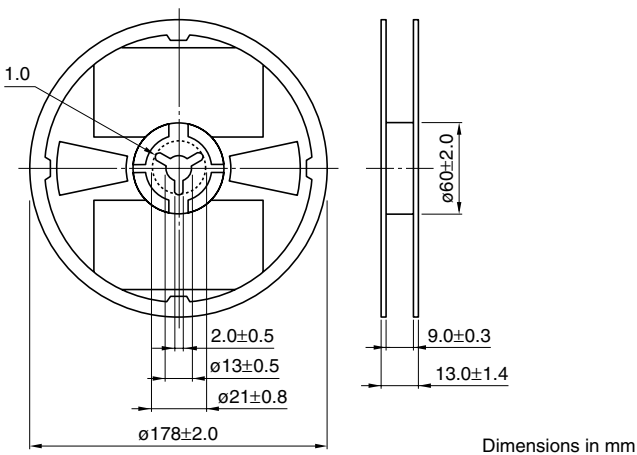


#### MPZ2012S601A

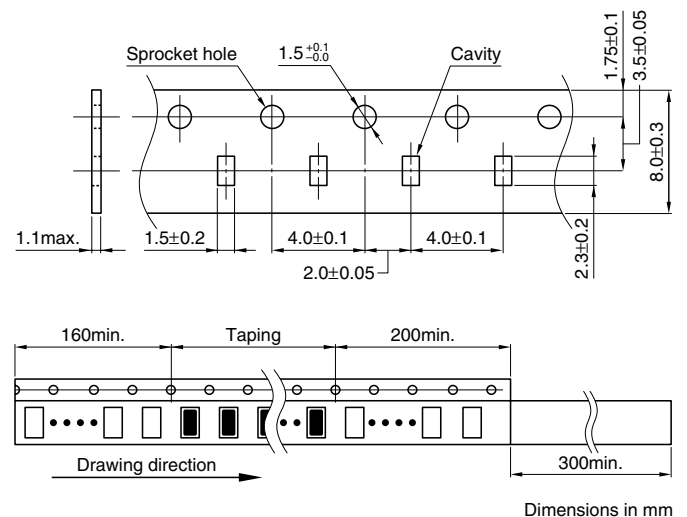


## PACKAGING STYLES

### REEL DIMENSIONS



### TAPE DIMENSIONS



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